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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,852	03/30/2004	Hyun Sook Kim	1594.1363	2332
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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER PERRIN, JOSEPH L	
			ART UNIT	PAPER NUMBER
			1792	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/811,852

Applicant(s)

KIM ET AL.

Examiner

Joseph L. Perrin, Ph.D.

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-18 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 19-21, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 November 2007 has been entered.

Response to Arguments

2. Applicant's arguments filed 15 November 2007 have been fully considered but they are not fully persuasive.

3. Regarding the rejection of claims 1-12 & 19-21 under §112, first paragraph, the amendment to the claims renders the rejection of claims 1-12 moot. However, the newly introduced limitation of an "input unit" is considered new matter in the same way as in the previous new matter rejection. The "input unit" is significantly broad in scope and reads simply on a dispenser in which the user selectively "inputs" detergent which, in combination with the other claim elements, is not supported by applicant's original disclosure as filed. It appears applicant is again attempting to broadening the scope of the original disclosure as filed which is prohibited under §112, first paragraph. In view of the original disclosure as filed, a "key input unit" is disclosed and the claims should be

corrected accordingly. Moreover, the duplicate recitation of "key input unit" in claims 10 & 11 require correction. Regarding claim 19, applicant's amendment fails to remedy the new matter rejection as claim 19 still reads outside of the scope of the original disclosure as filed. Simply put, applicant's amendment adding an "input unit" is noted (rejected as new matter, see above). However, this has no structural cooperative relationship with the control unit as claimed in claim 19. Thus, the claimed control unit is still broader in scope than the original disclosure as filed and the rejection is maintained for reasons of record. Moreover, applicant's argument that the claims comply with §112, first paragraph, citing paragraph 0038, lines 1-4 is not persuasive because such argument is not commensurate in scope with the claimed limitation in claim 19. Correction is still required.

4. Similarly regarding the previous rejection of claims 1-12 & 19-21 under §112, second paragraph, the amendment to the claims renders the rejection of claims 1-12 moot. However, it is unclear what is meant by the newly added limitation "input unit" which renders claims 1-12, 19-21 & 23 indefinite. As noted above, the scope of this limitation is significantly broader in scope than the original disclosure as filed and reads on the originally disclosed "key input unit" or any other form of input including a dispenser in which the user selectively "inputs" a detergent. Moreover, regarding claim 19 it is still unclear how the control unit can "determine" the difference between a powdered detergent or liquid detergent. Clearly, there is missing some type of structural cooperative relationship or structural limitation that allows the control unit to perform such function. Is this determination based on the user input or by some

sensing means? As best understood by the original disclosure, the "determination" by the control unit is simply the controller operating based on the user input of detergent and the claims will be examined accordingly. However, clarification and correction of the claim language is still required.

5. Regarding the §102(b) rejections of claims 23-24 over PASTRYK and HARDAWAY, applicant argues that neither reference discloses that the control unit causes a pump to dissolve detergent in response to a determination by the control unit, based on the input, that the detergent is powdered. The Examiner disagrees and, based on the vague and indefinite claim language and the resulting broad scope, both PASTRYK and HARDAWAY read on the invention as claimed. As discussed in the §112 rejections, the "determination" of the control unit is unclear. Manifestly, when the user inputs either a liquid or powdered detergent, the functioning of the control unit to dissolve the detergent and perform a wash cycle necessarily is a "response" to the detergent input which is "determined". Simply put, the claimed invention provides no structural language to clearly point out how the "determination" is performed nor does it clarify how the controller functions "in response" to the detergent (i.e. response to a sensed condition?). As best understood the claimed "determination" is nothing more than the routine operation of a wash program based on the control unit receiving an input, which generally reads on any washing machine with a user input and control unit performing a washing function. Thus, the user selection and input of a powdered detergent manifestly requires the control unit to operate based on a powdered detergent selection. Given the immense breadth of the claim, the selective action by the user in

both PASTRYK and HARDAWAY to include either liquid or powdered detergent, and the use of a pump to circulate water and detergent by spraying which manifestly would dissolve the detergent by water flow, read on the claimed invention. Thus, no structural difference is apparent, much less a patentable structural difference. Applicant is requested to show how the claimed apparatus patentably distinguishes from the prior art of record, as no patentably distinguishing structure is apparent in the claimed invention. See 37 CFR 1.111(b).

6. Similarly regarding the §103(a) rejection of claims 1-6, 9, 12 and 19-21 over PASTRYK or HARDAWAY in view of KIM or KIUCHI, applicant argues that the washing machine operates "in response to a determination from the control unit that the detergent is a powdered detergent". However, as discussed above applicant has not demonstrated that the "determination" by the control unit is anything more than performing a washing operation upon detergent input by the user which is fairly described in PASTRYK and HARDAWAY. The Examiner finds no requirement in the claimed invention of the "determination" requiring anything more than the user input of detergent, and since the user may selectively input a powdered detergent such recitation reads on the claimed invention. Moreover, both KIM and KIUCHI teach that it is known to determine whether or not the detergent is liquid or powder and perform a washing operation based on the "determined" type of detergent. It is also noted that applicant has not provided any showing or evidence as to how such control unit determination provides any unpredictable results.

7. In response to applicant's arguments against the references individually on pages 10 & 11 of the response, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. On page 12 of the response, applicant challenges the Examiner's motivation of "selecting desired detergent based on load type". However, this is not motivation but rather the predictable result achieved by the combination. It is noted that the Supreme Court decision in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007) forecloses teaching, suggestion, motivation (i.e. the TSM test) as the only rationale in determining obviousness. In the instant case, all of the concepts and components are known in the prior art and the combination of the references would appear to produce the predictable results of selectively determining detergent type and perform a washing function based on the determined detergent type. Absent unexpected (i.e. unpredictable) results, the determination and selection of detergent type to perform a washing function is considered an obvious modification in view of the state of the art. An obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not. *Leapfrog Enterprises Inc. v. Fisher-Price Inc.*, 82 USPQ2d 1687 (Fed. Cir. 2007); see also *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

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9. Regarding the §103(a) rejection of claims 7, 8, 10 & 11 over PASTRYK or HARDAWAY in view of KIM or KIUCHI, and further in view of MCALLISTER and/or DENISAR, applicant argues that MCALLISTER fails to make up for the deficiencies of PASTRYK and HARDAWAY in claim 1. This is not persuasive because PASTRYK and HARDAWAY are not deficient for claim 1. Applicant further argues that none of the references teach or suggest the motor of claim 7. Notwithstanding the fact that it is common knowledge in the washing machine art that motors rotating a rotary tub in opposite directions via control means as claimed is not considered a point of novelty, MCALLISTER provides such motor as clearly indicated in the rejection. Accordingly, claims 7, 8, 10 & 11 are deemed unpatentable for reasons of record.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-12, 19-21 & 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 1, 19 & 23, the broadening of scope of the newly introduced limitation "input unit" is considered new matter. While the original disclosure as filed supports a "key input unit", there is no

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support for the much broader language "input unit" which reads on any type of user input not contemplated by applicant, such failing to convey to one skilled in the art that, at the time the application was filed, applicant had possession of the claimed invention. Moreover, the duplicate recitation in claims 10 & 11 of "key input unit" raises question to whether or not the newly recited "input unit" is supported at all since a "key input unit" is already claimed, there being no apparent additional "input unit" disclosure. Clarification and correction are required.

In claim 19, the control unit "determining whether a detergent used is a powdered detergent or a liquid detergent" is still considered new matter because the newly introduced limitation is broader in scope than the original disclosure as filed and includes detergent determining configurations (i.e. sensing or detecting) not contemplated by applicant, such failing to convey to one skilled in the art that, at the time the application was filed, applicant had possession of the claimed invention. Thus, applicant's addition of an input unit without any structural cooperative relationship with the control unit fails to remedy the new matter issue because the broadening scope of the control unit still exists as previously indicated. Correction is still required.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-12, 19-21 & 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In independent claims 1, 19 & 23, it is unclear

what is meant by "input unit". Is this the "key input unit" which is already claimed in claims 10 & 11? Or is this another input unit. If so, applicant is required to point out where such additional "input unit" is supported in the original disclosure as no support can be found. Thus, it is unclear what "input unit" applicant is claiming. Clarification and correction are required.

In independent claim 19, the control unit "determining whether a detergent used is a powdered detergent or a liquid detergent" renders the claim indefinite because such language suggest some type of sensing/detecting/determining of the type of detergent but no such structure is claimed. That is, how is the detergent "determined"? Is the type of detergent sensed or inputted by the user? While the claim now includes an "input unit", there is no structural cooperative relationship between the input unit and the control unit, as argued by applicant. Thus, it is still unclear how the control unit performs the "determining" function. Clarification and correction are still required.

Claim Rejections - 35 USC § 102

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
15. Claims 23 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,986,093 to PASTRYK et al. ("PASTRYK"). PASTRYK discloses a drum washing machine with water tub (24), rotary tub (25), plural detergent supplies (50/52/54; readable on "input unit") capable of user input of powdered detergent, a detergent feed pipe (74) in fluid communication between the water tub and a spraying

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unit (41) for spraying into the rotary tub, a detergent feed unit including a detergent dissolution space (70) and pump (28) which dissolves detergent from the water tub to the rotary tub through the feed pipe during circulation, and conventional control means for operating the washing machine (including driving the pump and supplying/circulating water which would supply and dissolve detergent via circulation through the mixing unit as well as the spray outlet) along with controllable water feed valves (34/35/37). See Figures 1, 6, and relative associated text. Accordingly, recitation of PASTRYK reads on applicant's claimed apparatus.

16. Claims 23 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,233,718 to HARDAWAY et al. ("HARDAWAY"). HARDAWAY discloses a drum washing machine with water tub (139), rotary tub (35), plural detergent supplies (60/62/64; readable on "input unit"), a detergent feed pipe (with valve "J") in fluid communication between the water tub and a spraying unit (51) for spraying into the rotary tub, a detergent feed unit including a detergent dissolution space (80) and pump (38) which dissolves user selected detergent (i.e. either powdered or liquid) from the water tub to the rotary tub through the feed pipe, and conventional control means for operating the washing machine (including driving the pump and supplying/circulating water which dissolves and supplies detergent via circulation through the mixing unit as well as the spray outlet), along with controllable water feed valves (44/45). See Figures 1, 3, 4, and relative associated text. Accordingly, recitation of HARDAWAY reads on applicant's claimed apparatus.

Claim Rejections - 35 USC § 102/103

17. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
18. Claims 1-6, 12, 19 & 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over PASTRYK or HARDAWAY in view of either U.S. Patent No. 5,438,507 to KIM et al. ("KIM") or U.S. Patent No. 5,140,842 to KIUCHI et al. ("KIUCHI").

Recitation of PASTRYK and HARDAWAY are repeated here from above. As previously indicated, both PASTRYK and HARDAWAY disclose a washing machine using a control system, selective user selection of either liquid or powder detergent and performing a washing operation upon user input of detergent, detergent feed unit which dissolves detergent before feeding the detergent into the rotary tub, and circulation of detergent and wash fluid. As best understood from the original disclosure, the control unit "determining" step is not based on any sensing function but rather is solely dependent on the user input of detergent. Thus, recitation of PASTRYK and HARDAWAY read on the claimed invention.

Even if, *arguendo*, one were to consider this determination a functional operation of determining whether the detergent is liquid or powder, for instance, by sensing means (not supported by the original disclosure, see §112 rejections above), both KIM and KIUCHI teach that it is known in the washing machine art to selectively determine whether the detergent is liquid or powder and perform a wash function based on the

determination. For instance, KIM teaches that it is known in the washing machine art to provide a control system to determine the selected use of either a powdered detergent or a liquid detergent (see entire document, for instance, col. 2, lines 37-44) and improved control of determining "kind of detergent to be used" (col. 2, line 54 – col. 3, line 29). KIUCHI teaches that it is known in the washing machine art to provide a control system that judges "whether liquid detergent or powdery detergent is used" (see entire document, for instance, col. 3, line 66 – col. 4, line 35).

All of the component parts are known in PASTRYK, HARDAWAY, KIM & KIUCHI. The only difference is the combination of "old elements" into a single washing machine.

Thus, it would have been obvious to one having ordinary skill in the art to provide the detergent determining system of either KIM or KIUCHI with the washing machine control system of either PASTRYK or HARDAWAY, since the operation of the detergent determining system of KIM & KIUCHI is no way dependent on the operation of the other washing machine components of PASTRYK & HARDAWAY, and a detergent determining system could be used in combination with a standard washing machine to achieve the predictable results of selecting desired detergent type based on load type.

19. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of KIM or KIUCHI, and further in view of MCALLISTER. Recitation of PASTRYK, HARDAWAY, KIM & KIUCHI are repeated here from above. While both disclose drums rotated by motors, neither appears to

specifically disclose rotating the drums in opposite directions (i.e. oscillating).

MCALLISTER teaches that it is known in the washing machine art to provide oscillating action for the purpose of enhanced mechanical action in washing clothes, including both horizontal axis and vertical axis rotary drum washing machines (see entire document, for instance, paragraph [0013]. Therefore, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the washing machines of PASTRYK or HARDAWAY (in view of KIM or KIUCHI) with oscillating washing action for the purpose of enhancing mechanical washing action in a washing machine.

Further regarding claim 8, both circulating the water and reciprocating the water are for the same purpose (i.e. thoroughly dissolving detergent in the washing water prior to spraying into the washing machine) and the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to either reciprocate the water or circulate the water to achieve said same purpose since both appear to be functional equivalents and achieve the same purpose. The Examiner notes that one-way pumps and reversible pumps are common knowledge in the art and the selection of either type of pump to achieve enhanced detergent dissolving would have been within the level and knowledge of one having ordinary skill in the art absent secondary considerations.

20. Claims 9 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of KIM or KIUCHI. Recitation of PASTRYK,

HARDAWAY, KIM & KIUCHI are repeated here from above. While PASTRYK discloses operating the pump (28) to circulate detergent and water through mixing tank (70) for the purpose of thoroughly dissolving detergent in the washing water, which would necessarily provide a certain degree of reciprocation of the water flow, PASTRYK does not expressly disclose driving the pump to "reciprocate" the detergent for the purpose of thoroughly dissolving detergent in the washing water (note that HARDAWAY provides a similar system with mixing tank (80)). Both circulating the water (in PASTRYK and HARDAWAY) and reciprocating the water (instant invention) are for the same purpose (i.e. thoroughly dissolving detergent in the washing water prior to spraying into the washing machine) and, absent secondary considerations, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to either reciprocate the water or circulate the water to achieve said same purpose since both appear to be functional equivalents and achieve the same purpose.

21. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of KIM or KIUCHI, and further in view of DENISAR. Recitation of PASTRYK and HARDAWAY are repeated here from above. While PASTRYK, HARDAWAY, KIM & KIUCHI disclose the washing machine operated by the user via a conventional key input controller (18/20/22) neither appears to expressly disclose the key input controller for inputting specified detergents. DENISAR teaches that it is known in the washing machine art to provide key input controls on a detergent dispensing unit for allowing a user to select specific laundry additives (capable of being

liquid or solid) (see automatic dispenser 10 in Figure 1 and relative associated text).

Therefore, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the inputting control means of PASTRYK or HARDAWAY with the selective detergent selecting inputting control means of DENISAR to enable a user to selectively dispense one of plural detergents as required to perform the desired washing operation.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 8:00-4:30.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph L. Perrin/
Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1792

JLP